Applicant(s)/Patent under Reexamination Application/Control No. **Index of Claims** QUAQUEBEKE ET AL. 10/530,904 Examiner Art Unit 1617 Barbara P. Badio, Ph.D. (Through numeral) Cancelled Rejected Non-Elected Appeal 0 Allowed Restricted Interference Objected

| Cla      | aim      | n Date    |              |                   |  |              |              |   | ſ               | Claim     |     |       |          | Date            |          |          |               |               |   | ٦       | Claim    |   |                    |               | Date     |          |              |   |              |        |                     |         |          |
|----------|----------|-----------|--------------|-------------------|--|--------------|--------------|---|-----------------|-----------|-----|-------|----------|-----------------|----------|----------|---------------|---------------|---|---------|----------|---|--------------------|---------------|----------|----------|--------------|---|--------------|--------|---------------------|---------|----------|
|          | -        | 6         |              |                   |  |              |              |   |                 |           | [   |       | )E       |                 |          | T        | T             |               |   | . [     |          | ٦ |                    |               | _        |          |              |   |              |        |                     |         |          |
| Final    | Original | 11/13/06  |              |                   |  |              |              |   |                 |           |     | Final | Original |                 |          |          |               |               |   |         |          |   | Final              | <u> </u>      | Original |          |              |   |              | l      |                     |         |          |
| 這        | Ĕ        | 1/1       |              |                   |  | ĺ            |              |   |                 |           |     | ίĒ    | اجز      |                 | i        |          |               |               |   |         |          |   | 🛱                  | :             | , 뜻      |          | l            | 1   |              |        |                     |         |          |
|          | ٥        | -         |              |                   |  |              |              |   |                 |           |     |       | ٥        |                 |          |          |               |               | - [   | - 1     |          |   |                    |               | ١        |          |              | }   |              |        |                     |         |          |
|          | 1        | K         |              |                   |  |              |              |   |                 |           | [   |       | 51       | П               |          | Т        | Т             |               |   |         |          |   |                    |               | 101      |          |              |   |              |        |                     | $\Box$  |          |
|          | 2        |           |              |                   |  |              |              |   |                 |           | [   |       | 52       |                 |          |          |               |               |   |         |          | ] |                    |               | 102      |          |              |   |              |        |                     |         | 7        |
|          | 3_       |           |              |                   |  |              |              |   |                 |           | [   |       | 53       |                 |          |          |               |               |   |         |          |   |                    |               | 103      |          |              |   |              |        |                     |         |          |
|          | 4        |           |              |                   |  |              |              |   |                 |           | [   |       | 54       |                 |          |          | $\Box$        | $\Box$        |   |         |          |   |                    |               | 104      |          |              |   |              |        |                     | T       |          |
|          | 5        | $\prod$   |              |                   |  |              |              |   |                 |           | [   |       | 55       |                 |          |          |               |               |   |         |          |   |                    |               | 105      |          |              |   |              |        |                     |         |          |
|          | 6        | $\coprod$ |              |                   |  |              |              |   |                 |           | [   |       | 56       |                 |          |          |               |               |   |         |          |   |                    |               | 106      |          |              |   |              |        | ,                   |         |          |
|          | 7 .      |           |              |                   |  |              |              |   |                 |           | [   |       | 57       |                 |          |          |               |               |   |         |          |   |                    |               | 107      |          |              |   |              |        |                     |         |          |
|          | 8        | Ш         |              |                   | <u> </u>                                     |              | L            |   |                 |           |     |       | 58       |                 |          |          |               |               |   |         |          |   |                    |               | 108      |          |              |   |              |        |                     |         |          |
| <u> </u> | 9        | Ш         |              |                   | L  |              | L            |   |                 |           |     |       | 59       |                 |          | _        | $\perp$       | $\perp$       |   |         |          |   | L                  | $\perp$       | 109      | Ш.       |              | $oxed{oxed}$  |              |        |                     |         | ╝        |
|          | 10       | Ш         |              |                   | L  |              |              | Ш   | Ш               |           |     |       | 60       |                 |          |          |               |               |   |         |          |   |                    |               | 110      |          |              |   |              |        |                     |         | ╝        |
|          | 11       | Щ         | <u>L</u>     |                   | <u> </u>                                     |              |              | Ш   |                 |           | l   |       | 61       | Ш               |          | $\perp$  | $\perp$       |               | $\perp$   |         |          | _ | $\perp$            |               | 111      |          | <u> </u>     | <u> </u>  |              |        |                     | $\perp$ | $\Box$   |
|          | 12       | Ш         | L.           |                   |  |              | L            | Ш   |                 |           |     |       | 62       | Ш               |          |          |               |               | $\perp$   |         |          | _ |                    | $\perp$       | 112      |          |              | $oxedsymbol{oxed}$  | $\Box$       | ot     |                     |         |          |
|          | 13       | Ш         |              |                   | <u> </u>                                     | _            | <u> </u>     | Ш   |                 |           | [   |       | 63       |                 |          |          | _[            |               | $oldsymbol{ol}}}}}}}}}}}}}}}}}}}}}$ |         |          | _ | L                  | _             | 113      | Ĺ        | 匚            | $oxedsymbol{ox{oxedsymbol{oxedsymbol{ox{oxedsymbol{oxedsymbol{ox{oxedsymbol{oxedsymbol{ox{oxedsymbol{oxedsymbol{ox{oxed}}}}}}$ |              |        | $\Box$              | $\bot$  | _]       |
| L        | 14       | Ш         | L            |                   | <u></u>                                      |              |              | $\sqcup$  |                 |           | Į   |       | 64       | Ш               |          | $\perp$  | $\perp$       | $\perp$       | $\perp$   |         | `        | _ | $\perp$            | $\perp$       | 114      |          |              |   | Ш            | $\Box$ | $\Box$              |         | ╝        |
|          | 15       | Ц         | L_           | <u> </u>          | $oxed{oxed}$                                 |              |              |   |                 |           |     |       | 65       | Ш               | $\Box$   | _        |               | $\perp$       | $\Box$  |         |          | _ |                    | $\perp$       | 115      |          |              | $oxedsymbol{oxed}$  | Ш            | $\Box$ | $\Box$              | $\perp$ | ╛        |
|          | 16       | Ц         | L            | $ldsymbol{f eta}$ | <u> </u>                                     |              | _            |   |                 | _         | ļ   |       | 66       | Ш               | Ш        |          | $\perp$       |               | _   | _ļ      |          | 4 | $\perp$            | $\perp$       | 116      |          | L            | <u> </u>  |              |        |                     |         | ╛        |
|          | 17       | Ц         | <u>L</u>     | <u> </u>          | 匚  | L            | L            |   | Ш               | _         |     |       | 67       | Ш               | Ш        | $\perp$  | $\perp$       |               | $\perp$   | _       |          | ╛ | L                  | $\perp$       | 117      |          |              |   |              |        |                     |         |          |
|          | 18       | Ц         | <u>L</u>     | L.                |  |              | lacksquare   |   |                 |           |     |       | 68       | Ш               |          | _        |               |               | _   |         |          | ╛ |                    | $\perp$       | 118      |          | _            | L   | $oxed{oxed}$ |        |                     | $\perp$ | _        |
| L        | 19       | Ц         | <u> </u>     | _                 |  |              | 乚            |   | Ш               |           |     |       | 69       | Ш               |          |          |               | _             |   |         |          | _ |                    |               | 119      |          | <u> </u>     | L   |              |        |                     |         |          |
| <u></u>  | 20       | Ц         | L.,          |                   | L  | <u> </u>     | <u> </u>     |   | Ш               | $\Box$    |     |       | 70       | Ш               | $\sqcup$ |          | ightharpoonup | _             |   | _       | $\perp$  | ╛ | L                  | $\perp$       | 120      |          | L            | <u> </u>  |              |        |                     |         | Ц        |
|          | 21       | Ш         | <u>L</u>     |                   |  | L            |              | $oxed{oxed}$  | Ш               |           |     |       | 71       | Ш               |          |          | $\perp$       | ightharpoonup |   |         |          | ╛ |                    | $\perp$       | 121      |          | L            |   | L            |        |                     |         |          |
|          | 22       | Ц         |              | _                 | <u> </u>                                     | _            | ┖            |   | Ш               | 凵         | .   |       | 72       | Ш               | $\Box$   |          | _             |               | _   | _       |          | _ | L                  | _             | 122      | ┸        | _            | <u> </u>  | L            |        |                     |         |          |
|          | 23       | Ш         |              |                   |  | <u> </u>     | 乚            | _   | Ш               | $\Box$    |     |       | 73       | Ш               | $\Box$   |          | $\dashv$      |               |   | _       | $\perp$  | ╛ | $\perp$            |               | 123      | $\perp$  | <u> </u>     | L   | <u> </u>     | Ш      |                     |         | _        |
|          | 24       | Ц         |              | _                 |  | <u> </u>     | _            |   | Щ               | _         | - [ |       | 74       |                 |          |          | 4             | _             | _   | _       |          | ╛ |                    | _             | 124      |          | L.           | _   |              |        |                     |         |          |
|          | 25       | Ш         | _            | L                 | _  | ╙            | _            | L   |                 | _         |     |       | 75       | Ш               |          |          | 4             | _             | _1  | _       |          | _ |                    | _             | 125      |          | ┖            | ļ   |              |        | _                   |         | _        |
|          | 26       | Щ         |              |                   | <u> </u>                                     | <u> </u>     |              |   | Li              | _         |     |       | 76       | Ш               |          |          | _             | $\perp$       |   |         | $\perp$  | ╛ | $oxedsymbol{oxed}$ | _             | 126      |          | <u> </u>     | <u> </u>  |              |        |                     |         | _        |
|          | 27       | Щ         |              | L.                | L  | L            |              |   | Ш               | _         |     |       | 77       |                 |          |          | _             |               | _   | _       | $\perp$  | ┛ | L                  | _             | 127      | $\perp$  | ┖            | <u> </u>  |              | Ш      |                     |         | _        |
|          |          | 1         | L            | L                 | $ldsymbol{ldsymbol{ldsymbol{ldsymbol{eta}}}$ | _            | ┖            | ᆫ   | Ц               |           |     |       | 78       | Ш               | Ш        |          | _             |               | $\dashv$  | _       |          | _ | $\perp$            |               | 128      |          | <u> </u>     | <u> </u>  |              | Ш      |                     |         | ┙        |
|          | 29       | L         | L            |                   |  | L_           | <u> </u>     |   | Ш               |           | ٠ إ |       | 79       | Ш               |          | $\perp$  | ightharpoonup | $\perp$       | _   |         |          | ╛ | ·                  | $\perp$       | 129      | $\perp$  | ╙            |   |              | Ш      | $\Box$              | $\perp$ | _        |
|          | 30       | 1         | <u> </u>     |                   | _  | <u> </u>     | L            |   |                 |           |     |       | 80       |                 |          | _        |               | _             | _   | $\perp$ |          | _ |                    |               | 130      |          | 乚            |   | <u> </u>     |        | $\Box$              |         | _        |
|          | 31       | L,        | <u> </u>     | _                 |  | $oxed{oxed}$ | ┖            | L   | Ш               | Щ         |     |       | 81       | Ш               | Ш        | $\perp$  | $\perp$       |               | $\Box$  |         | $\perp$  | _ | L                  |               | 131      | ┸        | 辶            | ┖   |              | Ш      |                     |         | ╝        |
|          | 32       | V         | _            | _                 | L  |              | _            | <u> </u>  | Ш               |           |     |       | 82       | Ш               | Ш        | _        | _             |               | Ц   | _       |          | ┙ |                    |               | 132      | $\perp$  | <u> </u>     | $oxed{oxed}$  |              | Ш      |                     |         | _        |
| <u> </u> | 33       | _         | <u> </u>     | <u> </u>          | <b>L</b>                                     | <u> </u>     | <u> </u>     | $oldsymbol{ol}}}}}}}}}}}}}}}}}$ | Ш               |           |     |       | 83       | Ш               | Ш        | $\perp$  | $\perp$       |               | $\perp$   |         |          | 4 | <u> </u>           | ightharpoonup | 133      | $\bot$   | 1_           | <u> </u>  | Ш            | Ш      | $\Box$              |         | ╛        |
| <u> </u> | 34       | <u> </u>  | <u> </u>     | _                 | $\vdash$                                     | <u> </u>     | <u> </u>     | <u> </u>  | Ш               | _         |     |       | 84       | Ш               | Щ        |          | $\dashv$      | _             | _   | _       | $\dashv$ | 4 | <u> </u>           | 4             | 134      |          | $\perp$      | $\vdash$  | <u> </u>     | Ш      | $\Box$              | _       | $\bot$   |
|          | 35       | _         | <u> </u>     | <u> </u>          | ⊢  | <u> </u>     | <del> </del> | $oxed{oxed}$  | Ш               |           |     |       | 85       | Ш               | $\sqcup$ | 4        | _             | 4             | _   |         |          | 4 |                    | 4             | 135      | _        | ↓_           | <b>L</b>  | <u> </u>     | Ш      | $\Box$              | _       | ┙        |
|          | 36       |           | <u> </u>     | ļ.,               | L.   | Ь.           | ├-           | <b> </b>  | Ш               | $\sqcup$  |     |       | 86       | Ш               | Щ        | 4        | _             | $\dashv$      | 4   | _       | _        | 4 | <u> </u>           | 4             | 136      | $\bot$   | ↓_           | ↓_  | <u> </u>     | Ш      | $\square$           | _       | 4        |
| <u> </u> | 37       | ⊢-        | <u> </u>     | <u> </u>          | $\vdash$                                     | <u> </u>     | ├-           | <del> </del>  | Ш               | $\square$ |     |       | 87       | Ш               | Ш        | _        | _             | 4             | _   |         |          | 4 | _                  | 4             | 137      |          | _            | ┺   | <u> </u>     | Щ      | $\sqcup$            | _       | $\dashv$ |
|          | 38       | ┞         | <u> </u>     | ⊢                 | <u> </u>                                     | <u> </u>     | ├-           | $\vdash$  | Щ               |           |     |       | 88       | Ш               | $\sqcup$ | _        | $\dashv$      | _             | _   | _       | $\perp$  | 4 | <u> </u>           | 4             | 138      | 4_       | $\vdash$     | ┞-  | <u> </u>     | Щ      | $\sqcup$            | _       | ╝        |
|          | 39       | <u> </u>  | $\vdash$     | ⊢                 | <u> </u>                                     | <b>!</b> —   | ⊢            | $\vdash$  | Ш               | $\square$ |     |       | 89       | $\vdash \dashv$ | $\sqcup$ |          | $\dashv$      | 4             | 4   | _       | _ _      | 4 | ļ                  | 4             | 139      | _        | Ŀ            | ┞-  | <u> </u>     | Щ      | $\sqcup$            | 4       | $\dashv$ |
|          | 40       | ⊢-        | _            | <u> </u>          | $\vdash$                                     | <u> </u>     | ļ.,          | <u> </u>  | Щ               | {         |     |       | 90       | Ш               | $\sqcup$ | 4        | 4             | 4             | _   | _       | $\dashv$ | 4 |                    | 4             | 140      | $\bot$   | 1            | ـــ   | <u> </u>     | Ш      | $\sqcup$            | _       | $\dashv$ |
| <u> </u> | 41       |           | <u> </u>     | -                 | ├-   | ├-           | $\vdash$     | <b>-</b>  | Н               |           |     |       | 91       | Ш               | $\vdash$ | _        | 4             | _             | _   | _       | $\dashv$ | 4 | <u> </u>           | _             | 141      | $\bot$   | 1            | _   | -            | Щ      | $\sqcup$            | _       | 4        |
| <u> </u> | 42       | ├-        | ├—           | $\vdash$          | $\vdash$                                     | <u> </u>     | -            | <del> </del>  | $\vdash \vdash$ |           |     |       | 92       | Н               | $\sqcup$ | _        | $\dashv$      | -             | $\dashv$  | _       |          | 4 |                    | 4             | 142      | $\perp$  | ⊢            | ـ   | <u> </u>     | Щ      | $\sqcup$            | 4       | 4        |
| <u> </u> | 43       | ⊢-        | ├—           | $\vdash$          | ⊢  | ├            | ├-           | <del> </del>  | Н               | _         |     |       | 93       | Ш               | $\sqcup$ | _        | $\dashv$      | -+            | $\dashv$  | _       | _        | 4 | <u> </u>           | 4             | 143      | 4-       | 1            | <del> </del>  | <u> </u>     | Щ      | $\sqcup$            | 4       | _        |
| <u> </u> | 44       | <u> </u>  | $\vdash$     | <u> </u>          | ⊢  | <u> </u>     |              | ļ   | Ш               | _         |     |       | 94       | Ш               | $\sqcup$ | _        | $\dashv$      | _             | _   | _       |          | 4 | <u> </u>           | 4             | 144      | 4        | 1_           | ┞-  | <b>L</b>     | Щ      | $\sqcup$            | _       | 4        |
| <u> </u> | 45       | ⊢-        |              | $\vdash$          | $\vdash$                                     | <u> </u>     | <b>⊢</b> −   | <del> </del>  | Ш               | _         |     |       | 95       | Н               | $\vdash$ | $\dashv$ | 4             | 4             | _   |         | $\dashv$ | 4 | <u> </u>           | 4             | 145      | $\bot$   | _            | ـــ   | $\vdash$     | Ш      | $\vdash \downarrow$ | 4       | _        |
| <u> </u> | 46       | —         | <del> </del> | <u> </u>          | <del> </del>                                 | <u> </u>     | ⊢            | -   | Ш               |           |     |       | 96       | Н               | Щ        | _        | _             | $\dashv$      | 4   | _       |          | 4 | <u> </u>           | _             | 146      | _        | _            | ↓_  | L            | Ш      | $\sqcup$            | _       | _        |
| <u> </u> | 47       | _         | <u> </u>     | $\vdash$          | <u> </u>                                     | <u> </u>     | <b>├</b>     | $\vdash$  | $\sqcup$        | $\dashv$  |     |       | 97       | $\square$       | $\sqcup$ | _        | 4             | _             | _   |         |          | 4 | <u> </u>           | _             | 147      | 4_       | ↓_           | ╙   | <u> </u>     | Щ      | $\sqcup$            | 4       | ┙        |
| <u> </u> | 48       | <u> </u>  | <u> </u>     | <u> </u>          | <b>!</b>                                     | ⊢            |              | $\vdash$  | Ш               | _         |     |       | 98       | Ш               | $\sqcup$ |          | _             | _             | _   | _       | $\bot$   | 4 | <u> </u>           | _             | 148      | 4        | $\vdash$     | ــــ  | L            | Ш      | $\sqcup$            | 4       | $\bot$   |
| <u> </u> | 49       | <u> </u>  | <u> </u>     | ├_                | $\vdash$                                     | <b>⊢</b> -   | ⊢            |   | Ш               | Ц         | ļ   |       | 99       | $\sqcup$        | $\sqcup$ | _        | 4             |               | _   |         |          | _ | <u> </u>           | _             | 149      | <b>↓</b> | $oxed{\bot}$ | ــــ  | <u> </u>     | Ь      |                     | $\perp$ | $\Box$   |
| <u></u>  | 50       | L_        | L_           |                   |  |              | L            |   | Ш               |           |     |       | 100      |                 | Ш        |          |               | l             | - 1   |         | İ        |   | 1                  |               | 150      |          | 1            | 1   | l l          |        |                     | - 1     |          |